

Hello World in Python

```
print("Hello World!")
```

Python Comments

Example 1

```
#This is a comment
```

Example 2

```
#This is a comment  
#written in  
#more than just one line
```

Example 3

```
""" This is a comment  
written in  
more than just one line """
```

Python Variables

```
x = "How old are you ?" #x is of type str  
print(x)  
>>> How old are you ?  
x = 25 #x now is of type int  
print(x)  
>>> 25
```

Python Data Types

Text Type:	str
Numeric Types:	int, float, complex
Sequence Types:	list, tuple, range
Mapping Type:	dict
Set Types:	set, frozenset
Boolean Type:	bool
Binary Types:	bytes, bytearray, memoryview

Get the data type of a variable "var"

```
type(var)
```

Python Data Types Examples

Python Casting

Casting is used to specify a type on to a variable and this is done using constructor functions.

Examples

```
x = int(5)      #x = 5  
x = int(2.8)   #x = 2  
x = float(5)   #x = 5.0  
x = float(2.8) #x = 2.8
```

Python Strings

Operations on strings and examples:

Multiline strings

```
x = """ This is a  
multiline string"""
```

Get the character at a specific position

```
x = "Python Programming"  
print(x[1])      #print character at position 1  
>>> y
```

Slicing

```
x = "Python Programming"  
print(x[3:5])  
>>> ho
```

Negative Indexing

```
x = "Python Programming"  
print(x[-15:-13])  
>>> ho
```

String Length

```
x = "Hello"  
print(len(x))  
>>> 5
```

Remove any whitespace from the beginning or the end

```
x = " Hello "  
print(x.strip()) #return "Hello"
```

Return the string in lower case

```
x = Hello  
print(x.lower()) #return "hello"
```

Python Strings

Example	Data Type
<code>x = "Color"</code>	list
<code>x = 1</code>	int
<code>x = 1.2</code>	float
<code>x = 2j</code>	complex
<code>x = ["Blue", "Red", "Yellow"]</code>	list
<code>x = ("Blue", "Red", "Yellow")</code>	tuple
<code>x = range(8)</code>	range
<code>x={"Age":25, "Height":1.72}</code>	dict
<code>x = {"Pink", "Red"}</code>	set
<code>x = frozenset({"Pink", "Red"})</code>	frozenset
<code>x = True</code>	bool
<code>x = b"Color"</code>	bytes
<code>x = bytearray(8)</code>	bytearray
<code>x = memoryview(bytes(8))</code>	memoryview

Get the data type of x :

```
x = "Color"
print(type(x))
>>> str
```

```
Return the string in upper case
x = Hello
print(x.upper()) #return "HELLO"

Replace a string with another string
x = "Hello"
print(x.replace("He", "A")) #return "Allo"

Choose a separator and split string into substrings
x = "Python Programming"
print(x.split(" ")) # return ['Python' , 'Progr-
aming']

Check if a string is present in a text
txt = "Tunisia is a North African country"
x = "North" in txt
print(x) # return True

Concatenation
x = "Hello"
y = "World"
z = x + " " + y
print(z) # return "Hello World"

Insert numbers into strings
quantity = 3
itemno = 567
price = 49.95
myorder = "I want {} pieces of item {} for {}
dollars."
print(myorder.format(quantity, itemno, price))
```



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